INEEL V-3 Sludge, Inorganic Analysis

				1	LDR	<u> </u>
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	,
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
Aluminum	5470 D	NA	NA	NA	NA	
		UHC Treatment			1.15 mg/L	Using 17.9 mg/kg, the theoretical leachate
Antimony	17.9 B	Standard	UHC	1.9	TCLP	value is 0.895 mg/L .
		5.0 (D004), UHC				
	21.4 U				5.0 mg/L	
Arsenic	(0.0386), TCLP	Standard	D004, UHC	1.4	TCLP	
		100 mg/l (D005),				
		UHC Treatment			21 mg/L	
Barium	mg/L TCLP	Standard	D005, UHC	1.2	TCLP	
						Using 29.7 mg/kg, the theoretical leachate
		-				value is 1.485 mg/L which is above the
		UHC Treatment			1.22 mg/L	nww treatment standard. Therefore it is a
Beryllium	29.7	Standard	UHC	0.82	TCLP	UHC .
Boron	38.5	NA	NA NA	NA	NA	
						0.409 mg/L TCUR components the land to be leave
	102 J					0.198 mg/L TCLP concentration is below
	•				0 44//	the characteristic limit however it exceeds
On desiron	0.198 mg/L,	4 0 (5000) 11110	Doge IIII	0.00	0.11 mg/L	the nww treatment standard limit.
Cadmium	TCLP	1.0 (D006), UHC		0.69	TCLP	Therefore, cadmium may be a UHC.
Calcium	36800 D	NA	NA	NA	NA	

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

D = Dilution Factor of 10.

Y = Laboratory defined flag.

E = Estimate value



INEEL V-3 Sludge, Inorganic Analysis

				T	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
						Using 0.601 mg/L concentration this waste
						is below the characteristic limit, however it
		5 (D007), UHC				exceeds the nww treatment standard
	947 0.601	Treatment			0.60 mg/L	slightly. Therefore, this constituent is a
Chromium	mg/L TCLP	Standards	D007, UHC	2.77	TCLP	UHC.
Cobalt	9.41	NA	NA	NA	NA	
Copper	699	NA	NA	NA	NA	
Iron	18900	NA	NA	NA	NA	
	1890	5.0 (D008), UHC				
	0.0426 mg/L,	Treatment			0.75 mg/L	
Lead	TCLP	Standard	D008, UHC	0.69	TCLP	
Magnesium	8480	NA	NA	NA	NA	
Manganese	8710 D	NA	NA	NA	NA	
	1390 Y E	0.2 (D009), UHC				
	0.003 mg/L,	Treatment			0.025 mg/L	
Mercury	TCLP	Standard	D009, UHC	0.15	TCLP	
						Using 563 mg/kg, the theoretical leachate
						value is 28.15 mg/L which is above the
	1	UHC Treatment			11 mg/L	nww treatment standard limt. This is a
Nickel	563 J	Standard	UHC	3.98	TCLP	UHC.

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

D = Dilution Factor of 10.

Y = Laboratory defined flag.

E = Estimate value



INEEL V-3 Sludge, Inorganic Analysis

Constituents	Concentration mg/kg	Applicable Regulatory Limit	Applicable RCRA Waste Code	LDR Treatment Standard for wastewater in mg/L	LDR Treatment Standard for non- wastewater in mg/kg	Comments
Potassium	5290 J	NA	NA	NA	NA	
Selenium	U (2.09) U (0.047) mg/L	1	D040	0.00	5.7 mg/L	
	TCLP	1 (D010)	D010	0.82	TCLP	
Silicon	3960 J	NA NA	NA	NA	NA	
Silver	1310 J 0.016 mg/L, TCLP	5 (D011), UHC Treatment Standard	D011, UHC	0.43	0.14 mg/L TCLP	
Sodium	6470 J	NA	NA	NA	NA NA	
Thallium	U (2)	UHC Treatment Standard	UHC	1.4	0.2 mg/L TCLP	Using 2.0 mg/kg, the theoretical leachate value is 0.1 mg/L which is below the nww treatment standard limt.
Tin	60.3 B	NA	NA	NA	NA NA	
Vanadium	10.8	NA	NA	NA	NA	
Zinc	9730	NA	NA	NA	NA	

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

D = Dilution Factor of 10.

Y = Laboratory defined flag.

E = Estimate value

INEEL V-3 Sludge, Miscellaneous Analysis

TSF-05, . (evision 1

					LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	-uou	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
Bromide	(10) U (10)	None	ΝΑ	ΑΝ	¥	
Chloride	64.3	None	ΑN	Ą	ΑN	
Fluoride	(3) (2)	None	AN	AA	A	
Nitrate	U (2)	None	AN	AN	AN	
Nitrite	U (4)	None	NA	ΑA	ΑN	
Phosphate	(3)	None	AN	AN	AN	
Sulfate	332	None	NA	ΑN	Ϋ́	
						Wastewater is defined as < 1% TOC and < 1%
Total Organic Carbon	937,000	< 1%	N A	Ą	ΑN	TSS.
Total Halides	1320	NA	NA	NA	AN	
						Wastewater is defined as < 1% TOC and < 1%
Total Suspended Solids	NA	<1%	NA	Ą	Ϋ́	TSS.
рН	7.08-7.86	$\leq 2 \text{ or } \geq 12.5$	None	۷A	ΑN	
Density	1.02					

U = Not Detected (Detection limit in parenthesis). TOC = 937000 mg/kg = 93.7 %, which is > 1%. This sludge is considered a non-wastewater. (Note: This percentage of TOC is not consistant with organics detected in the sludge)

INEEL V-3 Sludge, PCB Analysis

Constituents	Concentration mg/kg	Applicable Regulatory Limit	Applicable TSCA/RCRA Waste Code	LDR Treatment Standard for wastewater in mg/L	LDR Treatment Standard for non- wastewater in mg/kg	Comments
Aroclor-1016	U (19)		None	NA NA	NA NA	- Commonto
Aroclor-1221	U (37)	NA	NA	NA	NA	
Aroclor-1232	U (19)	NA	NA	NA	NA	
Aroclor-1242	U (19)	NA	NA	NA	NA	
Aroclor-1248	U (19)	NA	NA	NA	NA	
Aroclor-1254	U (19)	NA	NA	NA	NA	
Aroclor-1260	400 D	NA	NA	NA	NA	
		50 mg/kg for TSCA, UHC Treatment Standard for				This waste is regulated under TSCA and it may be subject to the UHC treatment standard level. Therefore, this waste must be incinerated prior to disposal for purposes of
Total Concentration	400 D	RCRA	None	0.1	10	PCBs.

U = Not Detected (Detection limit in parenthesis).

D = Dilution Factor of 20

INEEL OU 1-10 Site TSF-18, Tank V-9 Preliminary Liquid Phase Chemical Characterization Summary

- The <u>liquid phase</u> of the waste associated with this tank <u>is considered a wastewater</u> for purposes of complying with the Land Disposal Restrictions, in that it contains <1% TOC and <1% TSS. This determination as well as the hazardous waste determination listed below is preliminary based on existing analytical data.
- Hazardous Waste Determination: Highest concentrations detected are reported.

The RCRA Waste codes that apply to this waste are as follows:

Constituent	Concentration Detected in Waste (mg/L)	Regulatory Limit (mg/L)	Applicable Waste Code	LDR Treatment Standard for wastewater (mg/L)
		(8)		(1119/2)
Cadmium	1.9	1.0	D006	0.69
Mercury	0.563	0.2	D009	0.15
Benzene	ND @ 17	0.5	D018	10
Chloroform	ND @ 10	6.0	D022	0.046
1,2- Dichloroethane	ND@ 25	0.5	D028	0.21
1,1- Dichloroethene	ND @ 11	0.7	D029	0.025
Methylene Chloride	59.0	None (0.089 as a UHC)	UHC	0.089
Tetrachloroethene	ND @ 17	0.7	D039	0.056
1,1,1- Trichloroethane	58	None (0.054 as a UHC)	UHC	0.054
Trichloroethene	410	None (0.054 as a UHC)	F001	0.054
Lead	0.942	0.69	UHC	0.69
Nickel	13.8	3.98	UHC	3.98
3,3 Dichlorobenzidene (Dibenz (a,h) anthracene)	ND @ 0.066	0.055	UHC	0.055
2,4- Dimethylphenol	0.079	0.036	UHC	0.036

Constituent	Concentration Detected in Waste (mg/L)	Regulatory Limit (mg/L)	Applicable Waste Code	LDR Treatment Standard for wastewater (mg/L)
Indeno (1,2,3-cd) pyrene	ND @ 0.036	0.0055	UHC	0.0055
2-Methylphenol (o-cresol)	0.830E	200 (0.11 as a UHC)	UHC	0.11
4-Methylphenol (p-cresol)	0.830E	200 (0.77 as a UHC)	UHC	0.77
Phenol	0.1	0.039	UHC	0.039

UHC = Underlying Hazardous Constituent

E = Concentration exceeded the calibration range of the instrument. ND = Not Detected

- The detection limit for two SVOCs exceeded the treatment standard, therefore it can not be determined if this constituent is present in the waste below the level requiring treatment. LDR guidance suggests that in cases where detection limits are above either the characteristic limit or treatment standards, the generator may use his knowledge of the waste, in lieu of analytical results, to certify that the constituents are not present in the waste. However, since this waste will not be re-analyzed for these two constituents, these constituents are assumed to be present in the waste at the detection limit value.
- The detection limits for a majority of the VOCs were above the wastewater treatment standard as well as the characteristic limit for certain constituents. Again, as previously stated, LDR guidance suggests that in cases where detection limits are above either the characteristic limit or the treatment standard, the generator may use his/her knowledge of the waste, in lieu of analytical results, to certify that these constituents are not present in the waste. However, since this waste will not be reanalyzed for these constituents the following VOCs are also assumed to be present in the waste at the detection limit value (see attached tables for concentrations) and idaentified as underlying hazardous constituents (The above table identifies those VOCs with detection limits exceeding characteristic limits.): Acetone, Bromodichloromethane, Bromoform, Bromomethane, 2-Butanone, Carbon disulfide, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, Dibromochloromethane, 1,3-Dichloroethane, trans-1,2-Dichloroethene, 1,2-Dichloropropane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Ethylbenzene, 4-Methyl-2-pentanone, 1,1,2,2-Tetrachloroethane, Toluene, 1,1,2-Trichloroethane, Vinyl Chloride, and Xylene.

- Based on a review of the analytical data provided by INEEL, this waste is considered both a characteristic and a listed hazardous waste requiring treatment of the organic constituents followed-by stabilization of the ash for the inorganic constituents.
- **Recommendation:** The physical form or phase of the waste to be disposed should be the same form as described above.

If this waste will not be treated on-site, the waste acceptance criteria of possible offsite treatment facilities should also be considered.

INEEL V-9 VOC Analysis on liquid phase.

	% ≠ √	<u> </u>	> .	>	7 % ك	
Comments	The 110 mg/L detection limit exceeds the ww treatment standard. Assuming the density of this liquid is equivalent to water, the 110 mg/L is below the nww treatment standard.	The 17 mg/L detection limit exceeds the characteristic limit as well as both treatment standards.	The 12 mg/L detection limit exceeds the ww treatment standards, but is below the nww treatment standard.	The 43 mg/L detection limit exceeds the ww treatment standards, but is below the nww treatment standard.	The 7.8 mg/L detection limit exceeds the ww treatment standard. Assuming the density of this liquid is equivalent to water, the 7.8 mg/L is below the nww treatment standard.	The 56 mg/L detection limit exceeds both treatment standards, but is below the characteristic limit.
LDR Treatment Standard for non- wastewater in mg/kg	160	10	15	15	15	36
LDR Treatment Standard for wastewater in mg/l	0.28	0.14	0.35	0.63	0.11	0.28
Applicable RCRA Waste Code	UHC	D018 or UHC	OHC	UHC	UHC	D035 or UHC
Applicable Regulatory Limit	Treatment standard limit if UHC	0.5 mg/l (D018) or treatment standard limit if UHC	Treatment standard limit if UHC	Treatment standard limit if UHC	Treatment standard limit if UHC	200 mg/l (D035) or treatment standard limit if UHC
Concentration mg/L	U (110)	U (17)	U (12)	U (43)	U (7.8)	U (56)
Constituents	Acetone	Benzene	Bromodichloromethane	Bromoform (Tribromomethane)	Bromomethane	2-Butanone (MEK)

U = Not Detected (Detection limit in parenthesis). J = Estimated Value

12341%

					LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/l	in mg/kg	Comments
		Treatment				
		standard limit if				The 13 mg/L detection limit exceeds both
Carbon disulfide	U (13)	UHC	UHC	3.8	4.8 mg/l	treatment standards.
		Treatment				
		standard limit if				The 11 mg/L detection limit exceeds both
Carbon tetrachloride	U (11)	UHC	UHC	0.057	6	treatment standards.
		400 // //>				
		100 mg/l (D021)				The 40 man // data attend the state of the s
		or treatment standard limit if				The 10 mg/L detection limit exceeds both
Chlorobenzene	U (10)	UHC	D021 or UHC	0.057	6	treatment standards, but is below the characteristic limit.
Chiloropenzene	0 (10)	Treatment	D021 01 0110	0.037	0	Characteristic iimit.
		standard limit if				The 17 mg/L detection limit exceeds both
Chloroethane	U (17)	UHC	UHC	0.27	6	treatment standards.
- Childred and the	<u> </u>	6 mg/l (D022) or	07.0	0.21		u camon standards.
		treatment				The 10 mg/L detection limit exceeds the
		standard limit if				characteristic limit as well as both treatment
Chloroform	U (10)	UHC	D022 or UHC	0.046	6	standards.
		Treatment				The 3.7 mg/L detection limit exceeds the ww
		standard limit if				treatment standards, but is below the nww
Chloromethane	U (3.7)	UHC	UHC	0.19	30	treatment standard.
		Treatment				The 15 mg/L detection limit exceeds the ww
Dibromochloromethane		standard limit if				treatment standards, but is below the nww
(Chlorodibromomethane)	U (15)	UHC	UHC	0.057	15	treatment standard.
		Treatment				The 3.8 mg/L detection limit exceeds the ww
		standard limit if				treatment standards, but is below the nww
1,1-Dichloroethane	U (3.8)	UHC	UHC	0.059	6	treatment standard.

U = Not Detected (Detection limit in parenthesis).



J = Estimated Value

<u></u>				<u> </u>	LDR I	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for		
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/l	in mg/kg	Comments
Constituents	ing/L	Limit	Code	iii iiig/i	in ing/kg	Comments
		0.5 mg/l (D028),				
		or treatment				The 25 mg/L detection limit exceeds the
		standard limit if			1	characteristic limit as well as both treatment
1,2-Dichloroethane	U (25)	UHC	D028 or UHC	0.21	6	standards.
		0.7 mg/l (D029)				
		or treatment				The 11 mg/L detection limit exceeds the
		standard limit if		•		characteristic limit as well as both treatment
1,1-Dichloroethene	U (11)	UHC	D029 or UHC	0.025	6	standards.
1,2-Dichloroethene (cis-						
Dichloroethene)	U (9.5)	NA	NA	NA	NA	
		Treatment				The 7.5 mg/L detection limit exceeds the ww
		standard limit if				treatment standards, but is below the nww
trans-1,2-Dichloroethene	U (7.5)	UHC	UHC	0.054	30	treatment standard.
		Treatment				The 718 mg/L detection limit exceeds the ww
		standard limit if				treatment standards, but is at the nww
1,2-Dichloropropane	U (18)	UHC	UHC	0.85	18	treatment standard.
		Treatment				The 14 mg/L detection limit exceeds the ww
		standard limit if				treatment standards, but is below the nww
cis-1,3-Dichloropropene	U (14)	UHC	UHC	0.036	18	treatment standard.
		Treatment		1		
trans-1,3-		standard limit if				The 19 mg/L detection limit exceeds both
Dichloropropene	U (19)	UHC	UHC	0.036	18	treatment standards.
		Treatment				
-		standard limit if				The 11 mg/L detection limit exceeds both
Ethylbenzene	U (11)	UHC	UHC	0.057	10	treatment standards.



U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

	1	1		T	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Annliachta	Annliachla			
1		Applicable	Applicable	Standard for	"""	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/l	in mg/kg	Comments
2-Hexanone (Methyl n-					:	
butyl ketone)	U (38)	NA	NA	NA	NA	
		Treatment				The 14 mg/L detection limit exceeds the ww
4-Methyl-2-pentanone		standard limit if				treatment standards, but is below the nww
(MIK)	U (14)	UHC	UHC	0.14	33	treatment standard.
		Treatment				The estimated value of 59 mg/L exceeds
		standard limit if			·	both treatment standards. Therefore, the
Methylene chloride	59J	UHC	UHC	0.089	30	waste must be treated prior to disposal.
Styrene	U (17)	NA	NA	NA	NA	
		Treatment	,			
1,1,2,2-		standard limit if				The 11 mg/L detection limit exceeds both
Tetrachloroethane .	U (11)	UHC	UHC	0.057	6	treatment standards.
		0.7 mg/l (D039)		,		
		or treatment				The 17 mg/L detection limit exceeds the
		standard limit if				characteristic limit as well as both treatment
Tetrachloroethene	U (17)	UHC	D039 or UHC	0.056	6	standards.
	, , , , , , , , , , , , , , , , , , , ,	Treatment				
		standard limit if				The 15 mg/L detection limit exceeds both
Toluene	U (15)	UHC	UHC	0.08	10	treatment standards.
	- (/	Treatment				58 mg/L exceeds both treatment standards.
		standard limit if				Therefore, this waste must be treated prior
1,1,1-Trichloroethane	58 J	UHC	UHC	0.054	6	to disposal.
		Treatment			_	
		standard limit if				The 10 mg/L detection limit exceeds both
1,1,2-Trichloroethane	U (10)	UHC	UHC	0.054	6	treatment standards.
.,.,		<u> </u>				a comment standards.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

Constituents	Concentration mg/L	Applicable Regulatory Limit	Applicable RCRA Waste Code	LDR Treatment Standard for wastewater in mg/l	LDR Treatment Standard for non- wastewater in mg/kg	Comments
Trichloroethene	410	None if listed	F001	0.054	6	410 mg/L exceeds the characteristic limit as well as both treatment standards. This waste must be treated prior to disposal.

U = Not Detected (Detection limit in parenthesis).

INEEL V-9 VOC Analysis on liquid phase.

	Concentration	Applicable Regulatory	Applicable RCRA Waste	LDR Treatment Standard for wastewater	LDR Treatment Standard for non- wastewater	
Constituents	mg/L	Limit	Code	in mg/l	in mg/kg LDR	Comments
				LDR Treatment	Treatment Standard for	
		Applicable	Applicable	Standard for		
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/l	in mg/kg	Comments
		0.2 mg/l (D043),				
		orTreatment				The 13 mg/L detection limit exceeds the
		standard limit if				characteristic limit as well as both treatment
Vinyl chloride	U (13)	UHC	D043 or UHC	0.27	6	standards.
Xylene (ortho)	U (14)	NA	NA	NA	NA	
		Treatment				The 19 mg/L detection limit exceeds both the
Xylene (total meta and		standard limit if				ww standards but is below the nww treatment
para)	U (19)	UHC	UHC	0.32	30	standard.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

•					LDR I	
				LDR	Treatment	·
				Treatment	Standard for	
		Applicable	Applicable	Standard for		
	Componention		• •			
Constituents	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	ug/L	Limit UHC Treatment	Code	in mg/l	in mg/kg	Comments
Assaulthans	11 (6)		11110	0.050		
Acenaphthene	U (6)	Standard	UHC	0.059	3.4	
A some and the dome	11 (3)	UHC Treatment		0.050		
Acenaphthylene	U (7)	Standard	UHC	0.059	3.4	
	14.4=>	UHC Treatment				
Anthracene	U (5)	Standard	UHC	0.059	3.4	
5 () "	11 (0)	UHC Treatment				
Benzo (a) anthracene	U (8)	Standard	UHC	0.059	3.4	
		UHC Treatment				•
Benzo (a) pyrene	U (1)	Standard	UHC	0.061	3.4	
		UHC Treatment				•
Benzo (b) fluoranthene	U (7)	Standard	UHC	0.11	6.8	
		UHC Treatment				
Benzo (g,h,l) perylene	U (3)	Standard	UHC	0.0055	1.8	
		UHC Treatment				
Benzo (k) fluoranthene	U (6)	Standard	UHC	0.11	6.8	
		UHC Treatment				
Butylbenzylphthalate	U (8)	Standard	UHC	0.017	28	
Bis (2-		UHC Treatment				
chloroethoxy)methane	U (8)	Standard	UHC	0.036	7.2	
		UHC Treatment				
Bis (2-chloroethyl)ether	U (7)	Standard	UHC	0.033	6	
		UHC Treatment				
Bis (2-chloroisopropyl) ether	U (6)	Standard	UHC	0.055	7.2	
		UHC Treatment				Concentration is below both treatment
Bis (2-ethylhexyl) phthalate	38	Standard	UHC	0.28	28	standards, therefore it is not a UHC.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

E = Concentration exceeded the calibration range of the instrument.

Tank √-9

		l		<u> </u>	LDR	
			•	LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	ug/L	Limit	Code	in mg/l	in mg/kg	Comments
		UHC Treatment				
4-Bromophenyl-phenylether	U (7)	Standard	UHC	0.055	15	
Carbozole (or Carbazole)	U (10)	None	NA	NA	NA	
		UHC Treatment				
Chrysene	U (8)	Standard	UHC	0.059	3.4	
4-Chloroaniline (p-		UHC Treatment				
chloroaniline)	U (27)	Standard	UHC	0.46	16	
4-Chloro-3-Methylphenol (p-		UHC Treatment				
chloro-m-cresol)	U (8)	Standard	UHC	0.018	14	
		UHC Treatment				
2-Chloronaphthalene	U (10)	Standard	UHC	0.055	5.6	
4-Chlorophenyl-phenylether	11 (7)	None	NA	NIA		
4-Chlorophenyi-phenyiether	U (7)	UHC Treatment	NA NA	NA	NA	
2-Chlorophenol	11 (6)	Standard	11110	0.044		
z-chlorophenor	U (6)	UHC Treatment	UHC	0.044	5.7	
Dibenz(a,h)anthracene	U (5)	Standard	UHC	0.055	8.2	
Dibenzofuran	U (4)	None	NA NA	0.055 NA	NA	
Diberizoidiari	0 (4)	None	INA	INA	INA	Waste may be F-listed and the
1,2-Dichlorobenzene (o-		UHC Treatment				concentration is above the wastewater
dichlorobenzene)	210E	Standard	UHC	0.088	6	
1,3-Dichlorobenzene (m-	2102	UHC Treatment	0110	0.000	0	treatment standard.
dichlorobenzene)	U (6)	Standard	UHC	0.036	6	
	- (-)		- · · · ·			Concentration is below both treatment
		7.5 (D027), UHC				standards, therefore it is not a UHC.
1,4-Dichlorobenzene (p-		Treatment				Concentration is also below the
dichlorobenzene)	49	Standard	D027, UHC	0.09	6	characteristic level.

U = Not Detected (Detection limit in parenthesis).



J = Estimated Value

E = Concentration exceeded the calibration range of the instrument.

<u> </u>				<u> </u>	LDR	
				LDR	Treatment	
				Treatment	Standard for	•
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	ug/L	Limit	Code	in mg/l	in mg/kg	Comments
3,3-Dichlorobenzidine		UHC Treatment				Detection Limit is above the wastewater
(Dibenz (a,h) anthracene)	U (66)	Standard	UHC	0.055	8.2	treatment standard.
		UHC Treatment				
2,4-Dichlorophenol	U (8)	Standard	UHC	0.044	14	
		UHC Treatment				
Diethylphthalate	U (8)	Standard	UHC	0.2	28	
		UHC Treatment				
2,4-Dimethylphenol	79	Standard	UHC	0.036	14	
		UHC Treatment				
Dimethylphthalate	U (7)	Standard	UHC	0.047	28	
		UHC Treatment				
Di-n-butylphthalate	U (3)	Standard	UHC	0.057	28	
		UHC Treatment				
Di-n-octylphthalate	6J	Standard	UHC	0.017	28	
4,6-Dinitro-2-methylphenol	190E	None	NA	NA	NA	
· .		UHC Treatment				
2,4-Dinitrophenol	U (27)	Standard	UHC	0.12	160	
		UHC Treatment				
2,4-Dinitrotoluene	U (10)	Standard	UHC	0.32	140	
		UHC Treatment				
2,6-Dinitrotoluene	U (8)	Standard	UHC	0.55	28	
		UHC Treatment				
Fluoranthene	U (8)	Standard	UHC	0.068	3.4	
		UHC Treatment				
Fluorene	U (5)	Standard	UHC	0.059	3.4	

U = Not Detected (Detection limit in parenthesis).

E = Concentration exceeded the calibration range of the instrument.

J = Estimated Value

				LDR	LDR Treatment	
				Treatment	Standard for	
]		Applicable	Applicable	Standard for		
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	ug/L	Limit	Code	in mg/l	in mg/kg	Comments
	<u></u>	0.13 (D032),				Comments
		UHC Treatment				
Hexachlorobenzene	U (7)	Standard	D032, UHC	0.055	10	
		0.5 (D033)UHC				
Hexachlorobutadiene		Treatment				
(Hexachloro-1,3-butadiene	U (10)	Standard	D033, UHC	0.055	5.6	
		UHC Treatment				
Hexachlorocyclopentadiene	U (13)	Standard	UHC	0.057	2.4	
		UHC Treatment				
Hexachloroethane	U (8)	Standard	UHC	0.055	30	
		UHC Treatment				Detection Limit is above the wastewater
Indeno (1,2,3-cd) pyrene	U (36)	Standard	UHC	0.0055	3.4	treatment standard.
Isophorone	U (7)	None	NA NA	NA	NA	
2-Methylnaphthalene	U (14)	None	NA	NA	NA	
2-Methylphenol (o-cresol)	830 E	200 mg/L, UHC Treatment Standard	D023, UHC	0.11	5.6	Waste is below the characteristic limit, but exceeds the ww treatment standard. Therefore it is a UHC.
4 Mathylphonol (p. aragel)	9205	200 mg/L, UHC Treatment	Door IIIIO	0.77	5.0	Waste is below the characteristic limit, but exceeds the ww treatment standard.
4-Methylphenol (p-cresol)	830E	Standard Treatment	D025, UHC	0.77	5.6	Therefore it is a UHC.
Naphthalene	U (8)	UHC Treatment Standard	UHC	0.059	5.6	
Нарпшалене	U (0)	UHC Treatment	UNC	บ.บอษ	5.0	
2-Nitroaniline (o-nitroaniline)	U (6)	Standard	UHC	0.27	14	

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

E = Concentration exceeded the calibration range of the instrument.

				f	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	•
Constituents	ug/L	Limit	Code	in mg/l	in mg/kg	Comments
3-Nitroaniline (m-		•				
nitroaniline)	U (17)	None	NA	NA	NA	
		UHC Treatment				
4-Nitroaniline (p-nitroaniline)	U (4)	Standard	UHC	0.028	28	
		2.0 (D036) or				
		UHC Treatment				
Nitrobenzene	U (9)	Standard	D036 or UHC	0.068	14	
2-Nitrophenol (o-		UHC Treatment				
nitrophenol)	U (7)	Standard	UHC	0.028	13	
4-Nitrophenol (p-		UHC Treatment				
nitrophenol)	37	Standard	UHC	0.12	29	
		UHC Treatment				
N-nitroso-dimethylamine	U (11)	Standard	UHC	0.4	2.3	
N-nitroso-di-n-propylamine		UHC Treatment				
(Di-n-propylnitrosamine)	U (13)	Standard	UHC	0.4	14	
N-nitrosodiphenylamine		UHC Treatment				-
(Diphenylnitrosamine)	U (10)	Standard	UHC	0.92	13	•
		UHC Treatment	•			
Pentachlorophenol	U (13)	Standard	UHC	0.089	7.4	
		UHC Treatment	•			
Phenanthrene	U (6)	Standard	UHC	0.059	5.6	
<u>.</u>		UHC Treatment				Concentration is above for the
Phenol	100E	Standard	UHC	0.039	6.2	wastewater treatment standards.
_		UHC Treatment				
Pyrene	U (12)	Standard	UHC	0.067	8.2	

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U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

E = Concentration exceeded the calibration range of the instrument.

Constituents	Concentration ug/L	Applicable Regulatory Limit	Applicable RCRA Waste Code	LDR Treatment Standard for wastewater in mg/l	LDR Treatment Standard for non- wastewater in mg/kg	Comments
		5.0 (D038) or				
		UHC Treatment				
Pyridine	U (10)	Standard	D038 or UHC	0.014	16	
Tributylphosphate	190E	None	NA	NA	NA	
		UHC Treatment				
1,2,4-Trichlorobenzene	U (7)	Standard	UHC	0.055	19	
		44 (D041), UHC				
		Treatment				
2,4,5-Trichorophenol	U (17)	Standard	D041, UHC	0.18	7.4	
		2 (D042), UHC				
		Treatment		1		
2,4,6-Trichlorophenol	U (10)	Standard	D042, UHC	0.035	7.4	

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

E = Concentration exceeded the calibration range of the instrument.

INEEL V-9 Inorganic Analysis on liquid phase.

					LDR	· · · · · · · · · · · · · · · · · · ·
				LDR	Treatment	•
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/L	in mg/kg	Comments
Aluminum	U (0.236)	NA	NA	NA	NA	
		UHC Treatment			1.15 mg/L	
Antimony	U (0.162)	Standard	UHC	1.9	TCLP	
		5.0 (D004), UHC				
		Treatment			5.0 mg/L	
Arsenic	U (0.232)	Standard	D004, UHC	1.4	TCLP	
		4.00 (1.0005)				
		100 mg/l (D005),				
		UHC Treatment			21 mg/L	
Barium	1.02	Standard	D005, UHC	1.2	TCLP	
		UHC Treatment			1.22 mg/L	Concentration is below both treatment
Beryllium	0.065	Standard	UHC	0.82	TCLP	standards.
Boron	37.6	NA	NA	NA	NA NA	
					0.11 mg/L	Concentration exceeds the characteristic
Cadmium	1.9	1.0 (D006), UHC	D006, UHC	0.69	TCLP	limit and both treatment standards.
Calcium	90.6	NA	NA	NA	NA	

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

N = Spiked Sample

INEEL V-9 Inorganic Analysis on liquid phase.

				1	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/L	in mg/kg	Comments
		5 (D007), UHC				
		Treatment			0.60 mg/L	
Chromium	1.46	Standards	D007, UHC	2.77	TCLP	UHC for Non-wastewater
Cobalt	0.116 B	NA	NA	NA	NA	
Copper	2.98	NA	ŅA	NA	NA	
Iron	17.9	NA	NA	NA	NA	
Lead	0.942	5.0 (D008), UHC Treatment Standard	D008, UHC	0.69	0.75 mg/L TCLP	Concentration exceeds both treatment standards therefore it is a UHC.
Magnesium	208	NA	NA	NA	NA	
Manganese	23.5	NA	NA	NA	NA	
Mercury	0.563	0.2 (D009), UHC Treatment Standard	D009, UHC	0.15	0.025 mg/L TCLP	Mercury exceeds the characteristic level, however a total concentration needs to be determined to determine appropriate nww treatment standard. Currently exceeds the ww treatment standard.
AP-1-1	40.0	UHC Treatment			11 mg/L	Concentration exceeds both treatment
Nickel	13.8	Standard	UHC	3.98	TCLP	standards therefore it is a UHC.

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

N = Spiked Sample

INEEL V-9 Inorganic Analysis on liquid phase.

		I		T	LDR	
		4		LDR	Treatment	
				Treatment	Standard for	•
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/L	in mg/kg	Comments
Potassium	8340	NA	NA	NA	NA	
					5.7 mg/L	
Selenium	U (0.234)	1 (D010)	D010	0.82	TCLP	
Silicon	25 NE	NA	NA	NA	NA	
		5 (D011), UHC				
		Treatment			0.14 mg/L	
Silver	U (0.0315)	Standard	D011, UHC	0.43	TCLP	
Sodium	3150	NA	NA	NA	NA	
						The estimated value of 59 mg/L exceeds both
		UHC Treatment	•		0.2 mg/L	treatment standards. Therefore, the waste
Thallium	U (0.370)	Standard	UHC	1.4	TCLP	must be treated prior to disposal.
Tin	U (0.116)	NA	NA	NA	NA	
Vanadium	U (0.022)	NA	NA	NA	NA	
Zinc	18.2	NA	NA	NA	NA	

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

N = Spiked Sample

INEEL V-9 Miscellaneous Analysis on liquid phase.

Revision 1

non-wastewater in mg/kg NA					LDR	LDR Treatment Standard for	
Concentration Regulatory Limit RCRA Waste mastewater in mg/L wastewater in mg/L wastewater in mg/L mg/L Limit Code in mg/L in mg/kg 0.0592 None NA NA NA 10.9 None NA NA NA 0.00144 B None NA NA NA 0.0632 None NA NA NA 0.29 None NA NA NA 0.29 NA NA NA NA 1.59 <1% NA NA NA 7.89 <2 or ≥ 12.5 None			Applicable	Applicable	Standard for	-uou-	
mg/L Limit Code in mg/L in mg/kg 0.0592 None NA NA NA 10.9 None NA NA NA 0.00144 B None NA NA NA 0.0632 None NA NA NA 0.00242 B None NA NA NA 0.029 None NA NA NA 3.06 < 1% NA NA NA 9.38 NA NA NA NA 1.59 < 1% NA NA NA 7.89 ≤ 2 or ≥ 12.5 None NA NA		Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
0.0592 None NA NA NA 10.9 None NA NA NA 0.00144 B None NA NA NA 0.0632 None NA NA NA 0.00242 B None NA NA NA 0.029 None NA NA NA 3.06 < 1% NA NA NA 9.38 NA NA NA NA 1.59 < 12.5 None NA NA	Constituents	mg/L	Limit	Code	in mg/L	in mg/kg	Comments
10.9 None NA NA NA NA NA 0.00144 B None NA	Bromide	0.0592	None	ΑN	ΑN	ΑN	
0.00144 B None NA NA NA 0.0632 None NA NA NA U (0.11) None NA NA NA 0.00242 B None NA NA NA 0.29 None NA NA NA 3.06 < 1%	Chloride	10.9	None	NA	AN	A V	
0.0632 None NA NA NA U (0.11) None NA NA NA 0.00242 B None NA NA NA 0.29 None NA NA NA 3.06 < 1%	Fluoride	0.00144 B	None	ΑΝ	Ϋ́	ΑN	
U (0.11) None NA NA NA 0.00242 B None NA NA NA 0.29 None NA NA NA 3.06 < 1%	Nitrate	0.0632	None	ΑN	ΑN	ΑN	
0.00242 B None NA NA NA 0.29 None NA NA NA 3.06 < 1%	Nitrite	U (0.11)	None	NA	ΝΑ	ΝΑ	
0.29 None NA NA NA 3.06 < 1%	Phosphate	0.00242 B	None	ΑN	Ϋ́	A V	
3.06 < 1% NA NA NA NA NA 1.59 < 1.59 < 2 or ≥ 12.5 None NA	Sulfate	0.29	None	NA	NA	NA	
3.06 < 1% NA							Wastewater is defined as < 1% TOC and < 1%
9.38 NA NA NA NA NA NA NA 1.59 <1% NA	Total Organic Carbon	3.06	< 1%	NA	Ϋ́	Ϋ́	TSS.
1.59 <1% NA NA NA NA NA 7.89 <2 or ≥ 12.5 None NA NA	Total Halides	9.38	NA	NA	NA	NA	
1.59 <1% NA NA NA NA 7.89 <2 or ≥ 12.5 None NA NA							Wastewater is defined as < 1% TOC and < 1%
7.89 < 2 or > 12.5 None NA	Total Suspended Solids	1.59	<1%	Ν	NA	NA	TSS.
	됩	7.89	\leq 2 or \geq 12.5	None	AN	ΑN	

U = Not Detected (Detection limit in parenthesis).

considered a wastewater.

B = Not defined in INEEL. TOC = 3.06 mg/L = 3.06E-4 %, which is < 1%.TSS = 1.59 mg/L = 1.59 E-4% which is < 1%. Therefore, liquid phase is

			y		LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	·
	Concentration	Regulatory	TSCA/RCRA	wastewater	wastewater	,
Constituents	mg/L	Limit	Waste Code	in mg/L	in mg/kg	Comments
Aroclor-1016	U (0.0054)	,	None	NA	NA	
Aroclor-1221	U (0.0054)	NA	NA	NA	NA	
Aroclor-1232	U (0.0054)	NA	NA	NA	NA	
Aroclor-1242	U (0.0054)	NA	NA	NA	NA	
Aroclor-1248	U (0.0054)	NA	NA	NA	NA	
Aroclor-1254	U (0.090)	NA	NA	NA	NA	
Aroclor-1260	0.036 J	NA	NA	NA	NA	
		50 mg/kg for				
		TSCA, UHC				This waste is not regulated under TSCA and it
		Treatment				is below the UHC treatment standard level.
		Standard for	·			Therefore, no PCB treatment is required prior
Total Concentration	0.036 J	RCRA	None	0.1	10	to disposal.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

1407112

INEEL OU 1-10 Site TSF-18, Tank V-9 Preliminary Liquid Phase Chemical Characterization Summary

- The <u>liquid phase</u> of the waste associated with this tank <u>is considered a wastewater</u> for purposes of complying with the Land Disposal Restrictions, in that it contains <1% TOC and <1% TSS. This determination as well as the hazardous waste determination listed below is preliminary based on existing analytical data.
- Hazardous Waste Determination: Highest concentrations detected are reported.

The RCRA Waste codes that apply to this waste are as follows:

Constituent	Concentration Detected in Waste (mg/L)	Regulatory Limit (mg/L)	Applicable Waste Code	LDR Treatment Standard for wastewater (mg/L)
Cadmium	1.9	1.0	D006	0.69
Mercury	0.563	0.2	D009	0.15
Benzene	ND @ 17	0.5	D018	10
Chloroform	ND @ 10	6.0	D022	0.046
1,2- Dichloroethane	ND@ 25	0.5	D028	0.21
1,1- Dichloroethene	ND @ 11	0.7	D029	0.025
Methylene Chloride	59.0	None (0.089 as a UHC)	UHC	0.089
Tetrachloroethene	ND @ 17	0.7	D039	0.056
1,1,1-		None (0.054 as a	UHC	
Trichloroethane	58	UHC)		0.054
Trichloroethene	410	None (0.054 as a UHC)	F001	0.054
Lead	0.942	0.69	UHC	0.69
Nickel	13.8	3.98	UHC	3.98
3,3 Dichlorobenzidene (Dibenz (a,h) anthracene)	ND @ 0.066	0.055	UHC	0.055
2,4- Dimethylphenol	0.079	0.036	UHC	0.036

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Constituent	Concentration Detected in Waste (mg/L)	Regulatory Limit (mg/L)	Applicable Waste Code	LDR Treatment Standard for wastewater (mg/L)
Indeno (1,2,3-cd) pyrene	ND @ 0.036	0.0055	UHC	0.0055
2-Methylphenol (o-cresol)	0.830E	200 (0.11 as a UHC)	UHC	0.11
4-Methylphenol (p-cresol)	0.830E	200 (0.77 as a UHC)	UHC	0.77
Phenol	0.1	0.039	UHC	0.039

• UHC = Underlying Hazardous Constituent

E = Concentration exceeded the calibration range of the instrument. ND = Not Detected

- The detection limit for two SVOCs exceeded the treatment standard, therefore it can not be determined if this constituent is present in the waste below the level requiring treatment. LDR guidance suggests that in cases where detection limits are above either the characteristic limit or treatment standards, the generator may use his knowledge of the waste, in lieu of analytical results, to certify that the constituents are not present in the waste. However, since this waste will not be re-analyzed for these two constituents, these constituents are assumed to be present in the waste at the detection limit value.
- The detection limits for a majority of the VOCs were above the wastewater treatment standard as well as the characteristic limit for certain constituents. Again, as previously stated, LDR guidance suggests that in cases where detection limits are above either the characteristic limit or the treatment standard, the generator may use his/her knowledge of the waste, in lieu of analytical results, to certify that these constituents are not present in the waste. However, since this waste will not be reanalyzed for these constituents the following VOCs are also assumed to be present in the waste at the detection limit value (see attached tables for concentrations) and idaentified as underlying hazardous constituents (The above table identifies those VOCs with detection limits exceeding characteristic limits.): Acetone, Bromodichloromethane, Bromoform, Bromomethane, 2-Butanone, Carbon disulfide, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, Dibromochloromethane, 1,3-Dichloroethane, trans-1,2-Dichloroethene, 1,2-Dichloropropane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Ethylbenzene, 4-Methyl-2-pentanone, 1,1,2,2-Tetrachloroethane, Toluene, 1,1,2-Trichloroethane, Vinyl Chloride, and Xylene.

10/23/01

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- Based on a review of the analytical data provided by INEEL, this waste is considered both a characteristic and a listed hazardous waste requiring treatment of the organic constituents followed-by stabilization of the ash for the inorganic constituents.
- **Recommendation:** The physical form or phase of the waste to be disposed should be the same form as described above.

If this waste will not be treated on-site, the waste acceptance criteria of possible offsite treatment facilities should also be considered.

INEEL V-9 VOC Analysis on Sludge.

				<u> </u>	LDR	
				LDR	Treatment	
				Treatment	Standard for	·
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
		Treatment				
		standard limit if				The 1400 mg/kg detection limit exceeds the
Acetone	U (1400) D	UHC	UHC	0.28	160	nww treatment standard.
						The 250 mg/kg detection limit exceeds the
		0.5 mg/l (D018)				nww treatment standard. Using 250 mg/kg,
		or treatment				the theoretical leachate value would be 12.5
_		standard limit if		1		mg/L which also exceeds the ww treatment
Benzene	U (250) D	UHC	D018 or UHC	0.14	10	standard and the characteristic limit.
		Treatment				
Duama diablanana dhan a	U (400) D	standard limit if		0.05	4.5	The 120 mg/kg detection limit exceeds the
Bromodichloromethane	U (120) D	UHC	UHC	0.35	15	nww treatment standard.
Bromoform		Treatment standard limit if				The FOO manifest data attending limit account to
(Tribromomethane)	U (500) D	UHC	UHC	0.63	15	The 500 mg/kg detection limit exceeds the nww treatment standard.
(Tribiomometriane)	O (300) D	Treatment	<u> </u>	0.03	10	The 140 mg/kg concentration exceeds the
		standard limit if				nww treatment standard. Therefore, this
Bromomethane	140 D J	UHC	UHC	0.11	15	constituent is a UHC.
						The 750 mg/kg detection limit exceeds the
						nww treatment standard. Using 750 mg/kg,
		200 mg/l (D035)				the theoretical leachate value would be 37.5
		or treatment				mg/L which also exceeds the ww treatment
		standard limit if				standard, but it is below the characteristic limit
2-Butanone (MEK)	U (750)	UHC	D035 or UHC	0.28	36	of 200 mg/L.
	-	Treatment				Using 120 mg/kg, the theoretical leachate
		standard limit if				value would be 6 mg/L which exceeds both
Carbon disulfide	U (120) D	UHC	UHC	3.8	4.8 mg/L	treatment standards.

J = Estimated Value

	<u> </u>	l		F	LDR	
				LDR	Treatment	
					Standard for	
		Applicable	Applicable	Standard for		
	Concentration	1				
Constituents		Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
		Treatment				T 100 / 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Combon Astrophic vide	11 (400) D	standard limit if				The 120 mg/kg detection limit exceeds the
Carbon tetrachloride	U (120) D	UHC	UHC	0.057	6	nww treatment standard.
		400 "(7004)				The 120 mg/kg detection limit exceeds the
		100 mg/l (D021)				nww treatment standard. Using 120 mg/kg,
		or treatment				the theoretical leachate value would be 6 mg/L
		standard limit if			-	which also exceeds the ww treatment standard
Chlorobenzene	U (120) D	UHC	D021 or UHC	0.057	6	but it is below the characteristic limit.
		Treatment				
		standard limit if				The 250 mg/kg detection limit exceeds the
Chloroethane	U (250) D	UHC	UHC	0.27	6	nww treatment standard.
						The 120 mg/kg detection limit exceeds the
						nww treatment standard. Using 120 mg/kg,
						the theoretical leachate value would be 6 mg/L
		6 mg/l (D022) or				which also exceeds the ww treatment
		treatment				standard. This detection limit is also at the
		standard limit if				characteristic limit, therefore it is uncertain if
Chloroform	U (120) D	UHC	D022 or UHC	0.046	6	this waste is characteristic.
		Treatment				The 80 mg/kg concentration exceeds the
		standard limit if				nww treatment standard. Therefore, this
Chloromethane	80 DJ	UHC	UHC	0.19	30	constituent is a UHC.
		Treatment				
Dibromochloromethane		standard limit if	į			The 120 mg/kg detection limit exceeds the
(Chlorodibromomethane)	U (120) D	UHC	UHC	0.057	15	nww treatment standard.

U = Not Detected (Detection limit in parenthesis).

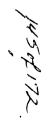
J = Estimated Value



	l			T	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	l	
1	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	,
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
- Constitution	mg/kg	Treatment	Oode	iii iiig/L	iii iiig/kg	Comments
		standard limit if				The 50 mg/kg detection limit exceeds the nww
1,1-Dichloroethane	U (50) D	UHC	UHC	0.059	6	treatment standard.
	- (30) -		00	0.000		The 380 mg/kg detection limit exceeds the
		0.5 mg/l (D028),				nww treatment standard. Using 380 mg/kg,
		or treatment				the theoretical leachate value is 19 mg/L which
		standard limit if				also exceeds the ww treatment standard and
1,2-Dichloroethane	U (380)	UHC	D028 or UHC	0.21	6	the characteristic limit.
						The 120 mg/kg detection limit exceeds the
		0.7 mg/l (D029)				nww treatment standard. Using 120 mg/kg,
		or treatment				the theoretical leachate value would be 6 mg/L
·		standard limit if				which also exceeds the ww treatment standard
1,1-Dichloroethene	U (120) D	UHC	D029 or UHC	0.025	6	and the characteristic limit.
1,2-Dichloroethene (cis-						
Dichloroethene)	U (110) D	NA	NA	NA	NA	
		Treatment				
		standard limit if				The 88 mg/kg detection limit exceeds the nww
trans-1,2-Dichloroethene	U (88) D	UHC	UHC	0.054	30	treatment standard.
		Treatment				
		standard limit if				The 250 mg/kg detection limit exceeds the
1,2-Dichloropropane	U (250) D	UHC	UHC	0.85	18	nww treatment standard.
					,	The 120 mg/kg detection limit exceeds the
,						nww treatment standard. Using 120 mg/kg,
		Treatment				the theoretical leachate value would be 6 mg/L
		standard limit if				which also exceeds the ww treatment
cis-1,3-Dichloropropene	U (120) D	UHC	UHC	0.036	18	standard.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value



					LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	·
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
		Treatment				
trans-1,3-		standard limit if				The 250 mg/kg detection limit exceeds the
Dichloropropene	U (250) D	UHC	UHC	0.036	18	nww treatment standard.
		Treatment				
		standard limit if				The 120 mg/kg detection limit exceeds the
Ethylbenzene	U (120) D	UHC	UHC	0.057	10	nww treatment standard.
2-Hexanone (Methyl n-						
butyl ketone)	U (500) D	NA	NA	NA	NA	
		Treatment				
4-Methyl-2-pentanone		standard limit if				The 120 mg/kg detection limit exceeds the
(MIK)	U (120) D	UHC	UHC	0.14	33	nww treatment standard.
		Treatment				
•	÷	standard limit if		:		The 250 mg/kg detection limit exceeds the
Methylene chloride	U (250) D	UHC	UHC	0.089	30	nww treatment standard.
Styrene	U (250) D	NA	NA	NA	NA	
		Treatment				
1,1,2,2-		standard limit if				The 120 mg/kg detection limit exceeds the
Tetrachloroethane	U (120) D	UHC	UHC	0.057	6	nww treatment standard.
						The 600 mg/kg concentration exceeds the
		0.7 mg/l (D039)				nww treatment standard. Using 600 mg/kg,
		or treatment				the theoretical leachate value would be 30
		ståndard limit if				mg/L which also exceeds the ww treatment
Tetrachloroethene	600	UHC	D039 or UHC	0.056	6	standard and the characteristic limit.
		Treatment				
<u> </u>		standard limit if				The 250 mg/kg detection limit exceeds the
Toluene	U (250) D	UHC	UHC	0.08	10	nww treatment standard.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value



		<u> </u>		T	LDR	
				LDR	Treatment	•
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
		Treatment				
		standard limit if				The 2600 mg/kg concentration exceeds the
1,1,1-Trichloroethane	2600 D	UHC	UHC	0.054	6	nww treatment standard.
		Treatment				
		standard limit if			_	The 120 mg/kg detection limit exceeds the
1,1,2-Trichloroethane	U (120) D	UHC	UHC	0.054	6	nww treatment standard.
						The 22000 mg/kg concentration exceeds
						the nww treatment standard. Using 22000
					}	mg/kg, the theoretical leachate value would
						be 1100 mg/L which also exceeds the ww
Trichloroethene	22000	None if listed	F001	0.054	6	treatment standard.
						The 120 mg/kg detection limit exceeds the
		0.2 mg/l (D043),				nww treatment standard. Using 120 mg/kg,
		orTreatment				the theoretical leachate value would be 6 mg/L
		standard limit if		1		which also exceeds the ww treatment standard
Vinyl chloride	U (120) D	UHC	D043 or UHC	0.27	6	and the characterisitic limit.
Xylene (ortho)	U (120) D	NA	NA	NA	NA	
		Treatment				
Xylene (total meta and		standard limit if				The 250 mg/kg detection limit exceeds the
para)	U (250) D	UHC	UHC	0.32	30	nww treatment standard.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value



				r	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Annlinable	Annlianhla	1		
	0	Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Acenaphthene	U (130)	Standard	UHC	0.059	3.4	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Acenaphthylene	U (130)	Standard	UHC	0.059	3.4	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Anthracene	U (130)	Standard	UHC	0.059	3.4	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Benzo (a) anthracene	U (130)	Standard	UHC	0.059	3.4	treatment standard.
	·	UHC Treatment				130 mg/kg detection limit exceeds the nww
Benzo (a) pyrene	U (130)	Standard	UHC	0.061	3.4	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Benzo (b) fluoranthene	U (130)	Standard	UHC	0.11	6.8	treatment standard.
		UHC Treatment			· · · · · · · · · · · · · · · · · · ·	130 mg/kg detection limit exceeds the nww
Benzo (g,h,I) perylene	U (130)	Standard	UHC	0.0055	1.8	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Benzo (k) fluoranthene	U (130)	Standard	UHC	0.11	6.8	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Butylbenzylphthalate	U (130)	Standard	UHC	0.017	28	treatment standard.
Bis (2-	`	UHC Treatment				130 mg/kg detection limit exceeds the nww
chloroethoxy)methane	U (130)	Standard	UHC	0.036	7.2	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Bis (2-chloroethyl)ether	U (130)	Standard	UHC	0.033	6	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Bis (2-chloroisopropyl) ether	U (130)	Standard	UHC	0.055	7.2	treatment standard.
	, ,					1100 mg/kg concentration exceeds the
Bis (2-ethylhexyl)		UHC Treatment		E 		nww treatment standard. Therefore this
phthalate	1100	Standard	UHC	0.28	28	constituent is a UHC.

U = Not Detected (Detection limit in parenthesis).



J = Estimated Value

				LDR	LDR Treatment	
į				Treatment	Standard for	•
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
		UHC Treatment				130 mg/kg detection limit exceeds the nww
4-Bromophenyl-phenylether	U (130)	Standard	UHC	0.055	15	treatment standard.
Carbozole (or Carbazole)	U (130)	None	NA	NA	NA	
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Chrysene	U (130)	Standard	UHC	0.059	3.4	treatment standard.
4-Chloroaniline (p-		UHC Treatment				130 mg/kg detection limit exceeds the nww
chloroaniline)	U (130)	Standard	UHC	0.46	16	treatment standard.
4-Chloro-3-Methylphenol (p-		UHC Treatment				130 mg/kg detection limit exceeds the nww
chloro-m-cresol)	U (130)	Standard	UHC	0.018	14	treatment standard.
		UHC Treatment		į		130 mg/kg detection limit exceeds the nww
2-Chloronaphthalene	U (130)	Standard	UHC	0.055	5.6	treatment standard.
4-Chlorophenyl-phenylether	U (130)	None	NA	NA	NA	
		UHC Treatment				130 mg/kg detection limit exceeds the nww
2-Chlorophenol	U (130)	Standard	UHC	0.044	5.7	treatment standard.
•	·	UHC Treatment				130 mg/kg detection limit exceeds the nww
Dibenz(a,h)anthracene	U (130)	Standard	UHC	0.055	8.2	treatment standard.
Dibenzofuran	U (130)	None	NA	NA	NA	
				ļ		350 mg/kg concentration exceeds the
			•			nww treatment standard. Therefore this
1,2-Dichlorobenzene (o-		UHC Treatment				constituent is a UHC or an F-listed
dichlorobenzene)	350	Standard	UHC	0.088	6	constituent.
						16 mg/kg concentration exceeds the nww
1,3-Dichlorobenzene (m-		UHC Treatment		1		treatment standard. Therefore this
dichlorobenzene)	16 J	Standard	UHC	0.036	6	constituent is a UHC.

U = Not Detected (Detection limit in parenthesis).

J = Estimated Value

					LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
]			!		90 mg/kg concentration exceeds the nww
						treatment standard. Using 90 mg/kg, the
		7.5 (D027), UHC				theoretical leachate value is 4.5 mg/L
1,4-Dichlorobenzene (p-		Treatment				which is below the characterisitic limit.
dichlorobenzene)	90 J	Standard	D027, UHC	0.09	6	However, this constituent is a UHC.
3,3-Dichlorobenzidine		UHC Treatment	5027, 0110	0.00		130 mg/kg detection limit exceeds the nww
(Dibenz (a,h) anthracene)	U (130)	Standard	UHC	0.055	8.2	treatment standard.
(2.55.12 (2,1.7 2.1.1.1.255.15)	3 (100)	UHC Treatment		0.000	<u> </u>	130 mg/kg detection limit exceeds the nww
2,4-Dichlorophenol	U (130)	Standard	UHÇ	0.044	14	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Diethylphthalate	U (130)	Standard	UHC	0.2	28	treatment standard.
·						270 mg/kg concentration exceeds the
		UHC Treatment				nww treatment standard. Therefore this
2,4-Dimethylphenol	270	Standard	UHC	0.036	14	constituent is a UHC.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Dimethylphthalate	U (130)	Standard	UHC	0.047	28	treatment standard.
		UHC Treatment				15 mg/kg concentration is below the nww
Di-n-butylphthalate	15 J	Standard	UHC	0.057	28	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Di-n-octylphthalate	U (130)	Standard	UHC	0.017	28	treatment standard.
4,6-Dinitro-2-methylphenol	U (670)	None	NA	NA	NA	
		UHC Treatment				670 mg/kg detection limit exceeds the nww
2,4-Dinitrophenol	U (670)	Standard	UHC	0.12	160	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
2,4-Dinitrotoluene	U (130)	Standard	UHC	0.32	140	treatment standard.

U = Not Detected (Detection limit in parenthesis).

		7				
					LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	·
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	`
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
		UHC Treatment				130 mg/kg detection limit exceeds the nww
2,6-Dinitrotoluene	U (130)	Standard	UHC	0.55	28	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Fluoranthene	U (130)	Standard	UHC	0.068	3.4	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Fluorene	U (130)	Standard	UHC	0.059	3.4	treatment standard.
		0.13 (D032),				
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Hexachlorobenzene	U (130)	Standard	D032, UHC	0.055	10	treatment standard.
		0.5 (D033)UHC				
Hexachlorobutadiene		Treatment			_	130 mg/kg detection limit exceeds the nww
(Hexachloro-1,3-butadiene	U (130)	Standard	D033, UHC	0.055	5.6	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Hexachlorocyclopentadiene	U (130)	Standard	UHC	0.057	2.4	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Hexachloroethane	U (130)	Standard	UHC	0.055	30	treatment standard.
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Indeno (1,2,3-cd) pyrene	U (130)	Standard	UHC	0.0055	3.4	treatment standard.
Isophorone	U (130)	None	NA	NA	NA	
2-Methylnaphthalene	110 J	None	NA	NA	NA	
		200 mg/L or UHC treatment				500 mg/kg concentration exceeds the nww treatment standard. Using 500 mg/kg, the theoretical leachate value is 25 mg/L which is below the
2-Methylphenol (o-cresol)	500	standard	D023, UHC	0.11	5.6	characterisitic limit.Therefore it is a UHC.

U = Not Detected (Detection limit in parenthesis).



	I				LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for		·
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	1	Limit	Code	in mg/l		Comments
Constituents	mg/kg	LIIIIL	Code	in mg/i	in mg/kg	Comments
						260 mg/kg concentration exceeds the
						nww treatment standard. Using 260
		200 mg/L or				mg/kg, the theoretical leachate value is
		UHC treatment				13 mg/L which is below the
4-Methylphenol (p-cresol)	260	standard	D025, UHC	0.77	5.6	characterisitic limit.Therefore it is a UHC.
			•			4 mg/kg concentration exceeds the nww
		UHC Treatment				treatment standard. Therefore it is a
Naphthalene	44 J	Standard	UHC	0.059	5.6	UHC.
		UHC Treatment				670 mg/kg detection limit exceeds the nww
2-Nitroaniline (o-nitroaniline)	U (670)	Standard	UHC	0.27	14	treatment standard.
3-Nitroaniline (m-						
nitroaniline)	U (670)	None	NA	NA	NA	
		UHC Treatment				670 mg/kg detection limit exceeds the nww
4-Nitroaniline (p-nitroaniline)	U (670)	Standard	UHC	0.028	28	treatment standard.
		2.0 (D036) or				
		UHC Treatment				130 mg/kg detection limit exceeds the nww
Nitrobenzene	U (130)	Standard	D036 or UHC	0.068	14	treatment standard.
2-Nitrophenol (o-		UHC Treatment				130 mg/kg detection limit exceeds the nww
nitrophenol)	U (130)	Standard	UHC	0.028	13	treatment standard.
4-Nitrophenol (p-		UHC Treatment				670 mg/kg detection limit exceeds the nww
nitrophenol)	U (670)	Standard	UHC	0.12	29	treatment standard.
		UHC Treatment				
N-nitroso-dimethylamine	NA	Standard	UHC	0.4	2.3	
N-nitroso-di-n-propylamine		UHC Treatment			1	130 mg/kg detection limit exceeds the nww
(Di-n-propylnitrosamine)	U (130)	Standard	UHC	0.4	14	treatment standard.

U = Not Detected (Detection limit in parenthesis).



					LDR	
1				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
}	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/l	in mg/kg	Comments
N-nitrosodiphenylamine		UHC Treatment				130 mg/kg detection limit exceeds the nww
(Diphenylnitrosamine)	U (130)	Standard	UHC	0.92	13	treatment standard.
		UHC Treatment				670 mg/kg detection limit exceeds the nww
Pentachlorophenol	U (670)	Standard	UHC	0.089	7.4	treatment standard.
						21 mg/kg concentration exceeds the nww
		UHC Treatment				treatment standard. Therefore it is a
Phenanthrene	21 J	Standard	UHC	0.059	5.6	UHC.
						71 mg/kg concentration exceeds the nww
		UHC Treatment				treatment standard. Therefore it is a
Phenol	71 J	Standard	UHC	0.039	6.2	UHC.
ļ	į	UHC Treatment			ĺ	130 mg/kg detection limit exceeds the nww
Pyrene	U (130)	Standard	UHC	0.067	8.2	treatment standard.
					ļ	
		()			l	130 mg/kg detection limit exceeds the nww
		5.0 (D038) or				treatment standard. Using 130 mg/kg, the
		UHC Treatment				theoretical leachate value is 6.5 mg/L which
Pyridine	U (130)	Standard	D038 or UHC	0.014	16	is above the characterisitic limit.
Tributylphosphate	NA	None	NA_	NA	NA	
						32 mg/kg concentration exceeds the nww
		UHC Treatment				treatment standard. Therefore this is a
1,2,4-Trichlorobenzene	32 J	Standard	UHC	0.055	19	UHC.
		44 (D041), UHC				
		Treatment				670 mg/kg detection limit exceeds the nww
2,4,5-Trichorophenol	U (670)	Standard	D041, UHC	0.18	7.4	treatment standard.
		2 (D042), UHC				
0.40 = 1.11	11 (400)	Treatment	D040 11110	0.005		130 mg/kg detection limit exceeds the nww
2,4,6-Trichlorophenol	U (130)	Standard	D042, UHC	0.035	7.4	treatment standard.

U = Not Detected (Detection limit in parenthesis).



J = Estimated Value

INEEL V-9 Inorganic Analysis on sludge.

				T	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
Aluminum	2290	NA	NA	NA	NA	
		UHC Treatment			1.15 mg/L	Using 22.2 mg/kg, the theoretical leachate
Antimony	22.2 B N	Standard	UHC	1.9	TCLP	value is 1.11 mg/L .
		5.0 (D004), UHC				
		Treatment			5.0 mg/L	
Arsenic	U (3.7)	Standard	D004, UHC	1.4	TCLP	
		100 mg/l				Using 515 mg/kg, the theoretical leachate
		(D005), UHC				value is 25.8 mg/L which is above the nww
		Treatment			21 mg/L	treatment standard. Therefore, barium is a
Barium	515	Standard	D005, UHC	1.2	TCLP	UHC.
						Using 25.7 mg/kg, the theoretical leachate
	ļ					value is 1.29 mg/L which is above the nww
		UHC Treatment			1.22 mg/L	treatment standard. Therefore, beryllium is
Beryllium	25.7	Standard	UHC	0.82	TCLP	a UHC.
Boron	47.3	NA	NA	NA	NA	
					-	Using 30.9 mg/kg, the theoretical leachate
					0.11 mg/L	value is 1.55 mg/L which is above the
Cadmium	30.9	1.0 (D006), UHC		0.69	TCLP	characteristic limit.
Calcium	5660	NA	NA	NA	NA	
		5 (D007), UHC		1	ł	Using 1100 mg/kg, the theoretical leachate
		Treatment			0.60 mg/L	value is 55 mg/L which is above the
Chromium	1100	Standards	D007, UHC	2.77	TCLP	characteristic limit.
Cobalt	5.8	NA	NA	NA	NA	

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

N = Spiked Sample



INEEL V-9 Inorganic Analysis on sludge.

					LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for		
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
					LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/l	in mg/kg	Comments
Copper	43.1	NA	NA	NA	NA	
Iron	9710	NA	NA	NA	NA	
		5.0 (D008), UHC				Hoimm 500 months the Alexander Land of
		Treatment			0.75 //	Using 592 mg/kg, the theoretical leachate
Lead	592 N	Standard	DOOR HUC	0.60	0.75 mg/L	value is 29.6 mg/L which is above the
Magnesium	1670	NA	D008, UHC NA	0.69 NA	TCLP	characteristic limit.
Manganese	825	NA NA	NA NA	NA NA	NA NA	
Manganese	023	INA	INA	INA	NA	
	-					Using 2110 mg/kg, the theoretical leachate
						value is 105.5 mg/L which is above the
						characteristic limit. Note: Treatment may
		0.2 (D009), UHC				require IMERC or RMERC since
		Treatment			0.025 mg/L	concentration exceeds 260 mg/kg. Verify
Mercury	2110	Standard	D009, UHC	0.15	TCLP	first if waste would fail TCLP.

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

N = Spiked Sample



INEEL V-9 Inorganic Analysis on sludge.

				I	LDR	
				LDR	Treatment	
				Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/kg	Limit	Code	in mg/L	in mg/kg	Comments
						-
						Using 435 mg/kg, the theoretical leachate
	1	UHC Treatment			11 mg/L	value is 21.8 mg/L which is above the nww
Nickel	435	Standard	UHC	3.98	TCLP	treatment standard limt. This is a UHC.
Potassium	10300	NA	NA	NA	NA	
					5.7 mg/L	
Selenium	U (4.1) N	1 (D010)	D010	0.82	TCLP	
Silicon	292 N	NA	NA	NA	NA	
		5 (D011), UHC				Using 657 mg/kg, the theoretical leachate
		Treatment			0.14 mg/L	value is 32.9 mg/L which is above the
Silver	657	Standard	D011, UHC	0.43	TCLP	characteristic limit.
Sodium	1950 E	NA	NA	NA	NA	
						Using 7.8 mg/kg, the theoretical leachate
		UHC Treatment			0.2 mg/L	value is 0.39 mg/L which is above the nww
<u>Thallium</u>	7.8 B	Standard	UHC	1.4	TCLP	treatment standard limt. This is a UHC.
Tin	33.4	NA	NA	NA	NA	
Vanadium	6.8	NA	NA	NA	NA	
Zinc	1790	NA	NA_	NA	NA	

J = Estimated Value

B = Reported value is > to instrument detection limit but < contract required detection limit.

N = Spiked Sample

0	Concentration	Applicable Regulatory	Applicable TSCA/RCRA	LDR Treatment Standard for wastewater	wastewater	
Constituents	mg/kg	Limit	Waste Code	in mg/L	in mg/kg	Comments
Aroclor-1016	U (24)		None	NA NA	NA	
Aroclor-1221	U (47)	NA	NA	NA NA	NA	
Aroclor-1232	U (24)	NA	NA	NA	NA	
Aroclor-1242	U (24)	NA	NA	NA	NA	
Aroclor-1248	U (24)	NA	NA	NA	NA	
Aroclor-1254	U (24)	NA	NA	NA	NA	
Aroclor-1260	310 P	NA	NA	NA	NA	
		50 mg/kg for TSCA, UHC Treatment Standard for				This waste is regulated under TSCA and it may be subject to the UHC treatment standard level. Therefore, this waste must be incinerated prior to disposal for purposes of
Total Concentration	310 P	RCRA	None	0.1	10	PCBs.

U = Not Detected (Detection limit in parenthesis).
P = > 25% difference in detected concentration between two GC columns; lower value reported.

INEEL V-9 Miscellaneous Analysis on sludge.

					LDR	
				LDR	Treatment	
	:			Treatment	Standard for	
		Applicable	Applicable	Standard for	non-	
	Concentration	Regulatory	RCRA Waste	wastewater	wastewater	
Constituents	mg/L	Limit	Code	in mg/L	in mg/kg	Comments
Bromide	12.3	None	NA	NA	NA	
Chloride	503	None	NA	NA	NA	
Fluoride	7.41	None	NA	NA	NA	
Nitrate	36.7	None	NA	NA	NA	
Nitrite	7.11	None	NA	NA	NA	
Phosphate	1.09 B	None	NA	NA	NA	
Sulfate	45.3	None	NA	NA	NA	
						Wastewater is defined as < 1% TOC and < 1%
Total Organic Carbon	12924.7 mg/kg	< 1%	NA	NA	NA	TSS.
Total Halides	NP	NA	NA	NA	NA	
						Wastewater is defined as < 1% TOC and < 1%
Total Suspended Solids	NA	<1%	NA	NA	NA	TSS.
рН	7.7	≤ 2 or ≥ 12.5	None	NA	NA	
% Water	67.5					

B = Not defined in INEEL.

NP = Analysis not performed.

TOC = 12924.7 mg/kg = 1.29 %, which is > 1%. This sludge is considered a non-wastewater.